

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 5, line 24 with the following amended paragraph:

As shown in Figures 5 and 6, motor unit housing 56 includes a first housing section 56A, a second housing section 56B, and a gasket 250 between first housing section 56A and second housing section 56B. Disposed within motor unit housing 56 is a mounting bracket 254 that seats within a groove 258 formed in first housing section 56A and a groove 260 formed in second housing section 56B. A motor 262 having a drive shaft 263 is rigidly fixed to mounting bracket 254 by screws 264 and 268. Motor 262 is controlled by signals received over a communication bus 272 connected to a an electronic control unit 276 (Figure 1) which, in turn, is attached to frame 22 through a mounting bracket 280. ~~Motor~~ Electronic control unit 276 further communicates with a an electronic control center (not shown, but typically mounted on the bicycle handlebars) through a communication bus 284.

Please replace the paragraph beginning at page 8, line 1 with the following amended paragraph:

As shown in Figures 1, 2, 7 and 8, motion sensor 18 includes a sensor retainer 300 for mounting coaxially with the sprocket assembly 28 so that the sensor retainer 300 rotates together with the sprocket assembly 28. A plurality of first sensor elements 304 in the form of signal generating elements such as magnets are embedded within or otherwise mounted circumferentially around sensor retainer 300 for rotation with sensor retainer 300. A second sensor element 308 is attached to base member 44 or otherwise mounted in close proximity to sensor retainer 300 so that sensor retainer 300 rotates relative to second sensor element 308. In this embodiment, second sensor element 308 includes a frame 310 attached to base member 44 through bolts 311 so that second sensor element 308 is disposed on rear derailleur 14, a first sensor unit 308A for communicating with the plurality of first sensor elements 304, and a second sensor unit 308B for communicating with the plurality of first sensor elements 304. Each sensor unit 308A and 308B comprises a signal receiving element such as a magnetic signal receiver, and first sensor unit 308A is offset from

second sensor unit 308B in a circumferential direction. Thus, the direction of rotation of sprocket assembly 28 can be determined based on which sensor unit 308A or 308B first receives the magnetic signal from each first sensor element 304. The elapsed time between receipt of the signal by first sensor unit 308A and receipt of the signal by second sensor unit 308B for a given revolution of sprocket assembly 28 provides a second source of data for the rotational speed of sprocket assembly 28 in addition to the traditional use of the elapsed time between receipt of the magnetic signal for successive revolutions of sprocket assembly 28. The received signals are communicated to electronic control unit 276 over a communication bus 309 which structurally merges with communication bus 272 from motor 262 to form an integrated communication bus 313 (Figure 1).